

Welcome from the Workshop Chairs

Welcome to the fourth International Workshop on Empirical Requirements Engineering (EmpiRE 2014) at RE'14!

Over the last decade, the Information Technology industry has become ever more interested in evaluating Requirements Engineering (RE) approaches, techniques and tools and comparing their usefulness, effectiveness and utility in specific practical contexts. The increasing interest in empirical evaluation resulted in a growing number of industry-university collaborations in the RE community, that have been instrumental to generating empirical data through experiments, surveys, case studies, and action research studies. As empirical studies are recognized as indispensable and valuable ways to assess the actual benefits and cost of applying the RE methods and tools proposed in the RE community, the conversation on adopting systematic research methods and evaluation practices intensified.

The overall objective of the EmpiRE workshop series at the annual RE conference is to increase the cross-fertilization of Empirical Software Engineering (ESE) methods and RE by actively encouraging the exchange of knowledge and ideas between the communities of ESE and RE. Since its launch at RE'11 in Trento, the EmpiRE workshop has been serving as the platform promoting the use of new evaluation techniques from ESE in the area of RE as well as the discussion on new domains and problems in RE where involving ESE will make a great difference. Some outcomes of the past editions of EmpiRE include the identification of open research problems and the possible solutions to these problems regarding: (i) the aspects of RE approaches that can be evaluated; (ii) the factors, criteria, and metrics that are appropriate for empirical evaluation purposes; (iii) the replication of empirical RE studies; (iv) the role of the users' perspectives in empirical RE.

The fourth edition of EmpiRE builds upon the workshops hosted in 2011, 2012 and 2013 and is a further step towards establishing an inclusive forum in which leading experienced researchers, PhD candidates, practitioners and students can inform each other, learn about, discuss, and advance the state-of-the-art research and practice in empirical RE. The mission of EmpiRE 2014 is twofold:

- 1) to get researchers and practitioner think about better ways to strengthen the methodology base of RE research and
- 2) to leverage empirical evaluation approaches to explore and consolidate the interdisciplinary nature of industry-relevant RE research.

Due to the prevalence of software and other high-tech industry in Sweden, which is the RE'14 location, EmpiRE 2014 made a special effort to reach out to industry, through the inclusion of industry reports as a special type of papers to our submission call. Moreover, two special features of EmpiRE 2014 are the special session on evidence of state-of-the-art RE practices and the keynote presentation of Prof. Dr. Tony Gorschek on RE evaluation practices in industry and on industry-relevance of empirical RE results.

EmpiRE 2014 received 20 submissions. Each of these submissions has been reviewed by four members of the workshop's program committee, composed of 33 scientists and practitioners. Of all submissions, eight have been accepted as full papers, two as young position papers, one as an

industry report and one as a short paper. The resulting Empire 2014 program features works illustrating the use of observational studies, experiments, field studies, systematic reviews as ESE techniques applied to the following RE sub-domains: collaborative RE, security RE requirements, user involvement, requirements elicitation and requirements validation. We are happy to introduce two special kinds of studies that are included in EmpiRE 2014. The first, authored by Supha Khankaew and Stephen Riddle, surveys state-of-the-art RE practices at a country-wide level in a region (South Asia) that has so far been overlooked in empirical RE research. The second, authored by Mariano Ceccato, Alessandro Marchetto, Anna Perini, Angelo Susi, is an online study carried out at REFSQ 2013 (www.refsq.org), as part of the REFSQ's empirical RE tradition that invites REFSQ conference attendees to participate in life studies carried out during the annual REFSQ conference. This online study's focus is on the assessment of value/risk trade-offs of mobile apps from the perspective of smartphone users.

We would like to thank the Program Committee members and the external reviewers for their dedication to rigorous and timely peer review, which allowed us to highlight the very best research from the empirical RE community. We also thank all the authors who considered EmpiRE 2014 as the destination of their empirical RE papers. Finally, we would like to express our appreciation for the timely response and assistance that we received from the organizing committee and the staff of the RE'14 conference and, in particular, to the RE'14 Workshop Chairs Travis Breaux and Eric Knauss.

We hope you enjoy the workshop and the review of the workshop proceedings.

The EmpiRE 2014 organizing team:

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Sabrina Marczak, PUCRS University, Brazil
Xavier Franch, Universitat Politècnica de Catalunya (UPC), Spain
Nazim Madhavji, University of Western Ontario, Canada

Committees

Organizing Committee

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